

Claims

1. An apparatus for producing an ice container using ice powders, comprising:
an ice grinding unit for grinding an ice mass into ice powders;
5 a freezer positioned at one side of the ice grinding unit for maintaining the ice grinding unit in a proper temperature to prevent the ice powders from being molten;
an ice container forming unit installed in the freezer for receiving and compressing the ice powders to form the ice container;
a guide coupled to the ice container forming unit for guiding movement of the
10 ice container forming unit by a given distance;
a turntable rotatably installed in the freezer, the ice container compressed by the ice container forming unit moved by the guide being laid thereon; and
a plurality of cold air distributors installed at an outside of the turntable for blasting cold air onto a surface of the ice container to freeze the surface of the ice
15 container.
2. The apparatus as claimed in claim 1, wherein the ice grinding unit includes
a plurality of molds for forming an exterior surface of the ice container, the molds be reciprocately moved in such a manner that one side of one mold is
20 contacted and detached from one side of the other mold, and having a groove of a shape corresponding to the exterior surface of the ice container;
an upper mold disposed over the exterior forming molds for compressing the ice powders introduced into an opening formed by the exterior forming molds, the upper mold be reciprocately moved into the opening; and
25 a lower mold for blocking a bottom of the opening formed by the exterior forming molds contacted to each other, the lower mold be reciprocately moved toward the bottom of the opening.
3. The apparatus as claimed in claim 1 or 2, wherein steam heated by a desired

temperature is supplied to and discharged from the exterior forming molds, the upper and lower molds, and the turntable, respectively.

4. The apparatus as claimed in claim 2, wherein the respective exterior forming
5. molds is provided at one side thereof with a plurality of small holes.

5. The apparatus as claimed in claim 1, wherein the freezer includes a plurality
of solution injectors for injecting a solution onto a surface of the compressed ice
container rotated by the turntable.
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6. A method for producing an ice container using ice powders, comprising the
steps of:

grinding an ice mass into the ice powders;
reciprocately moving exterior forming molds having a groove for
15 accommodating the ice powders introduced from an ice grinding unit;
reciprocately blocking a bottom of an opening formed by the grooves of the
contacted exterior forming molds;
introducing the ice powders ground by the ice grinding unit into the opening
formed by the ice grinding unit;
20 reciprocately moving the upper mold to compress the ice powders, thereby
forming the ice container;
if the ice container is formed, detaching the upper and lower molds from the
ice container;
guiding the exterior forming molds, in which the ice container is disposed,
25 along a guide, laying the molds on an upper surface of the turntable, and detaching
the ice container from the exterior forming molds; and
supplying a cold blast generated from a cold air distributor onto a surface of
the ice container rotated on the turntable.

7. The method as claimed in claim 6, further comprising the step of injecting a solution from a solution injector onto a surface of the ice container.